

BERNHEIM (A.)

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UNGUENTUM HYDRARGYRI OR BLUE OINTMENT
ADMINISTERED BY THE MOUTH.*

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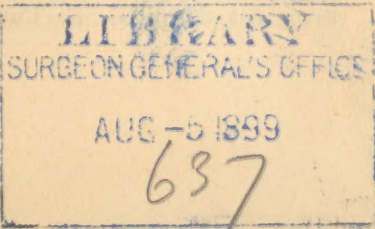
Philadelphia, Pa 1900. 6th

It is not the purpose of this paper to speak of the value of blue ointment *per se* in the treatment of cases of syphilis; there is no doubt about its great and quick efficacy, especially where an immediate result is desired. In general, blue ointment has always been used by the method of inunction; but very often this method of administration is disliked by the patient on account of its nastiness and incommodity. If we can substitute another method of using blue ointment with the same good and prompt results, I think it would be of no small advantage, particularly in private practice, when the patient likes to be as undisturbed as possible.

It was Dr. Anuschat, a German physician,¹ who, in 1896, recommended the internal administration of blue ointment. He, among others, recognized that the efficacy of blue ointment depends upon the evaporation of the metallic mercury. I know very well that not all the investigators agree as to the manner of action of the blue ointment. On the one side the authors assert that the globules of the metallic mercury are acted upon by the secretion of the skin glands, and are converted into a soluble preparation, that is taken up by the lymph and blood, but at the same time they do not admit that mercury acts by evaporation; others, again, admit the evaporation, but do not attach any value to it. On the other side, many again believe in the action of metallic mercury by its evaporation. It is very difficult to come to an absolute certainty in this respect.

We have reports of cases of people who lived in the same room with patients who used blue ointment by inunction, and who were affected by salivation; thus this would show that the mercury evaporated from the skin of the patients caused the salivation.

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Very often we found that the inunction of blue ointment had not much effect upon syphilitic patients. Upon more exact analysis of these cases we found that the patients, from too great a sense of cleanliness, washed the ointment off as soon as it was rubbed in; doing so, they removed every chance of evaporation, and the remedy did not exhibit the good effect shown by others who did not wash it off. Many doctors therefore make it a point not to allow the syphilitic patients to take a bath more than once a week. If you make an experiment by covering the inuncted parts of the body by means of an impermeable cloth you will not have the good effects of mercury either. That mercury, by evaporation, might do much harm, you all know from experiences of the working men in the looking-glass factories, and that this harm is but prevented by keeping mouth and teeth clean.

Dr. Anuschat shows that mercury, if completely extinguished by means of a fat and administered by the mouth, will be divided so minutely by the emulsifying action of the bile that when absorbed by the gut, and after having reached the circulating blood, it manifests its efficacy in the shape of vapor. He shows furthermore that the value of the method depends upon a sufficient quantity of fat being introduced into the bowels in order to secure an efficient emulsion.

The German Pharmacopœia no longer uses lard, but lanolin, in the manufacture of blue ointment, and I think this is a very great improvement. Lanolin is certainly one of the best constituents for any ointment.

Dr. Anuschat gives generally a pill mass of pure metallic mercury, 75 grains; lanolin, 150 grains, to be well triturated as perfectly and exactly as possible, adds some of radix althæ, and makes one hundred pills. Each pill contains $\frac{3}{4}$ of a grain of mercury, which corresponds to a cutaneous inunction of about 45 grains of blue ointment. He gives twice a day one pill; in severe cases he increases the dose to two pills two or three times a day. He makes it a point to give simultaneously much fat and alcohol, particularly the former.

Another German physician, Dr. L. Silberstein,² followed these directions, by prescribing the mass in the following formula: Unguenti lanolini hydrargyri cinerei (Ph. G.), 67½ grains; licorice powder, 75 grains; glycerin, 5 drops; mucilage enough to make a mass for 60 pills. S. Two pills twice a day. Each pill of this

contains $\frac{3}{4}$ of a grain of mercury, two pills being equal to $\frac{3}{4}$ of a grain, that of Dr. Anuschat. Dr. Silberstein reports fifty cases treated by this method and is very much pleased with it.

The unpleasant effects that might be occasioned by any mercurial treatment are surely not greater nor more frequent, on the contrary, rather smaller and rarer by this method. As a matter of course, mouth and teeth have to be cleaned thoroughly, indeed, the patient must use his or her tooth brush after each meal. Dr. Silberstein has seen such good results that he had hardly had any occasion to give a gargle.

Colics or dysentery, that may follow mercury, are prevented by taking care that the patient has a regular action of the bowels every day. If necessary, give a teaspoonful of castor oil, which usually removes any trouble of this kind, possibly improving the emulsion.

This may not be the time to extol this method as *the* treatment, and I can only add three cases, in which I used the administration of blue ointment by the mouth. But even these three cases would induce me, if occasion allows, to treat syphilis in this manner again.

CASE I. Man, 32 years of age, was infected several years ago; ulcers on his tongue and tonsils; exanthema on forehead, psoriasis plantæ manus.

Ordination: One pill twice a day. All the symptoms have disappeared after a term of five weeks.

This patient said to me three months later that he never had a quicker working and more pleasant medicine to take than this pill.

CASE II. Woman; indurated ulcer on left labium majus; ulcer in the groin; plaques on tongue, palate, tonsils; corona veneraria; infection three months ago.

Ordination: Two pills twice a day; improvement within three weeks. Interval in the treatment. Again, two pills twice a day. Symptoms completely disappeared seven weeks after the beginning of treatment.

A third case is just now under my treatment and improving.

In the meantime I have treated two other cases after the same method. A case of a woman that showed ulcers of the skin on different parts of the body, especially on the legs (knee and tibia). The other case was in a young child afflicted by congenital lues. The two cases yielded readily, and quick improvement followed. The symptoms disappeared.

The blue ointment I used was the U. S. Pharmacopœia Ointment, but of $33\frac{1}{3}$ per cent. I had the pills prepared by adding licorice

powder, and gave them in capsules. I found the best time for taking the capsules about one hour or a little more after meals. I did this, thinking that the capsules are thus carried earlier to the duodenum, so that they come in contact with the bile about the second or third hour after the meal, when the secretion of the duodenal juice and of the bile is at its best.

In the meantime I induced Parke, Davis & Co., Detroit, to make a pill after a prescription that I thought of great advantage. This pill, some samples of which I take occasion to exhibit before you, contains $\frac{3}{8}$ of a grain of metallic mercury, $\frac{1}{4}$ of a grain of lanolin, and 1 grain of purified ox gall; this pill has the regular enteric coating and is only dissolved in the duodenum in contact with an alkaline fluid and bile. As a matter of course, the more exact and minute the division of the mercury is, the better the ointment.

Parke, Davis & Co. wrote me, "We observed your instruction to triturate the mercury with lanolin until all evidence of globules of metallic mercury disappeared." And indeed, if you bring one of their pills under the microscope and compare it to the common blue ointment, prepared of lard, under the microscope, the difference between the two preparations will strike you at once; you will find relatively large globules of metallic mercury in the lard-blue ointment, while you hardly, and with difficulty, find evidence of the mercury in the well triturated lanolin-blue ointment.

I know very well that the human body is no chemical laboratory, nor the gut a test tube, but anyhow I made some rough experiments, giving a conception of the advisability to have the pills remain undissolved in the stomach. Many drugs, among them mercury, produce a better effect if not dissolved in the stomach, but only after having passed it, and that quite especially if given in fatty substances, and particularly this enteric pill "does not knock the stomach out," according to the wording of one of my patients, as he found "that red mercuric iodide does." I made some experiments about the solution and emulsion of this mercurial pill.

1. A liquid similar to the gastric juice; it is water with hydrochloric acid and pepsin. The pill I refer to is not dissolved, and even without the coating, blue ointment is not changed by it.

2. A liquid similar to the alkaline juice of the duodenum: water with pancreatin. It dissolves readily the coating of the pill, changes the pill and emulsifies it.

3. Another liquid contains ox gall alone, and (4) contains ox gall and pancreatin. The mercurial pill is dissolved also and emulsified.

5. I still made another experiment, introducing a fatty acid into the liquid, and that in shape of chocolate, the Hauswaldt Vigor Chocolate, and

6. Experiment with codliver oil. These last two experiments show the best and most thorough emulsion.

As Dr. Anuschat already made it a point to give simultaneously fatty substances, I reckon it would be a good thing to give codliver oil; but you know, gentlemen, how little the patients like codliver oil; and a surrogate for codliver oil, nay, not a surrogate, but a much better and more pleasant nourishment we find in the Hauswaldt Vigor Chocolate.³ Two members of this Mississippi Valley Medical Association, Dr. Thomas Hunt Stucky,⁴ of Louisville, and Dr. I. N. Love,⁵ of St. Louis, recommended the chocolate. I have prescribed Vigor chocolate in many cases of adults as well as children, of men as well as women. If you eat some of the common chocolate, very soon you get tired of it, and so does your alimentary tract. This is not the case by any means with this special preparation of Vigor chocolate. It is prepared by addition of fatty acid to the cocoa. I had patients who ate this chocolate for weeks and weeks, and that in a dose quite impossible with other preparations of cocoa. Even children are able to eat Vigor chocolate as much as half pound a day.

In cases of syphilis, where we intend to give blue ointment by the mouth, this chocolate might serve a double purpose. First, it helps the emulsion of the blue ointment better than anything else, and thus the mercury will have a greater effect; and second, I have found Vigor chocolate of great benefit in cases of anemia, and this condition we always meet in cases of lues.

The time has passed where the physicians thought and taught the best method of killing the syphilitic infection was the starving of the unfortunate patient. At the present time the physicians make it their duty to keep up the strength of the patients in any case, and especially in the individual afflicted by lues. In no country of the world, I believe, people demand more, to get not only a good medicine but what they regard even as higher, a slightly and pleasant medicine, than in this country. If we can furnish it without interfering with the good effects of the remedy, why should

we not do it? These pills (some of them I took myself for experiment's sake) don't disturb the stomach nor the bowels, and the chocolate is as good, I really believe better, than any other kind of candy. The prices of the pills as well as of the chocolate, are certainly not higher than other remedies for that disease.

Aside from my subject proper, I should heartily advise the substitution of another fat for the blue ointment for the lard. Lanolin is excellent for this use, and only a little more expensive. But quite especially in this country, we have a preparation that is exceedingly well adapted to the manufacturing of blue ointment, namely, the purest American vaseline. Some years ago I used a blue ointment prepared with the so-called vasogen,⁶ that is, purest vaseline impregnated with oxygen. It is very easily absorbable, can be rubbed into the skin in double the common dose, in half of the time necessary for the same dose of blue ointment.

I have had no occasion to administer this vasogen preparation by the mouth, but I would try it if I could get hold of it.

The purpose of my paper was to induce you, gentlemen, to try this method of treating lues, and I hope you, as well as the patient, will be pleased with it, for I can say of this method that which we demand of a treatment, that it ought to cure—*jucunde, cito et tute*—pleasantly, quickly, and safely.

Literature.

1. Deutsche Medicinal Zeitung, Nos. 74 and 75.
 2. Therapeutische Monatshefte, 1898, p. 378.
 3. Ibidem, 1896, p. 345.
 4. Extract from Clinical Lecture on Anemia, delivered at Louisville Hospital.
 5. Stenographic notes from meeting of Mississippi Valley Medical Association, Detroit, Sept. 3-6, 1895.
 6. Therapeutische Monatshefte, 1896, p. 79.
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